

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A disc-shaped tool comprising:

a plurality of virtual regions so formed as to be surrounded by two radius lines extending from a rotation center of a disc-shaped base metal and two concentric circles on the base metal disposed around the rotation center is ~~disposed~~ continuously in a circumferential direction on the ~~disc-shaped~~ ~~disk-shaped~~ base metal and ends in a circumferential direction of the virtual regions which overlap with each other, while a single slit is provided in each one of virtual regions so as to make contact with all of the two radius lines and the two concentric circles,

wherein a central angle formed by the two radius lines is equal to or less than  $90^\circ$ ;

the virtual regions are 4 to 24 in number;

a central ~~the~~ concentric circle located in a center of an interval of the two concentric circles forming the virtual region is in a range of  $0.6\ r$  to  $0.8\ r$  with respect to the rotation center of the base metal when a maximum gullet bottom radius of the base metal is  $r$ ;

an overlapping of the virtual regions continuously adjoining each other is in a range of  $0^\circ$  to  $12^\circ$  in terms of a ~~the~~ central angle around the rotation center;

a minimum ~~neighborhood~~ distance between adjacent the adjoining slits is equal to or more than  $0.05\ r$ ; and

a ratio of a length of an arc of the central concentric circle extending across all of the virtual region with respect to the interval of the two concentric circles in the virtual region is 3 to 6.

Claim 2 (Currently Amended): The disc-shaped tool according to claim 1 wherein each of the plurality of virtual regions has a ~~the~~ same shape.

Claim 3 (Currently Amended): The disc-shaped tool according to claim 2 wherein the slits formed in the plurality of virtual regions are ~~[[is]]~~ of the same shape.

Claim 4 (Withdrawn): The disc-shaped tool according to claim 1 wherein 3-5 teeth are arranged at an edge of the tool within each virtual region.